

REMARKS

The Applicants appreciate the Examiner's indication of allowable subject matter in claims 2, 6 and 10.

Reconsideration of this application is respectfully requested in view of the foregoing amendment and following remarks. Claims 1-12 are currently pending in this application and subject to examination.

In the Office Action mailed December 28, 2005, claims 1, 3-5, 7-9 and 11-12 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,427,439 to Xu et al. (hereinafter, "Xu"). Claims 1, 3-5, 7-9 and 11-12 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,755,014 to Kawai et al. (hereinafter, "Kawai"). Claims 2, 6 and 10 were objected to as depending from a rejected independent claim. The Applicants hereby traverse these rejections and objection, as follows.

Asserted Rejection in View of Xu

In making the rejection of claims 1, 3-5, 7-9 and 11-12 as being anticipated by Xu, the Office Action asserts that Xu discloses all of the features of independent claims 1, 5 and 9. The Applicants respectfully disagree.

Claims 1, 5 and 9 each recite a feature of determining the amount of reducing agent supplied to the NOx selective reduction catalyst by said reducing agent supply unit such that the NOx concentration detected by said NOx detector reaches an extreme value.

Xu teaches two embodiments, i.e., second and fourth embodiments, in which a NOx sensor is used. In these embodiments, Xu teaches determining if the NOx

concentration is above a threshold value, and if so, determining whether a NOx conversion value NCC exceeds a temperature dependent threshold value $C(T)$. If NCC exceeds the temperature dependent threshold value $C(T)$, then a reductant injection rate is reduced. However, Xu does not disclose or suggest attempting to make the NOx concentration reach an extreme value by adjusting the amount of reducing agent supplied to the NOx selective reduction catalyst, as recited in claims 1, 5, and 9.

For at least this reason, Applicants submit that claims 1, 5, and 9 are allowable over the Xu. As claims 1, 5 and 9 are allowable, the Applicants submit that claims 3-4, 7-8 and 11-12, which depend respectively from claims 1, 5 and 9, are likewise allowable over Xu.

Asserted Rejection in View of Kawai

In making the rejection of claims 1, 3-5, 7-9 and 11-12 as being anticipated by Kawai, the Office Action asserts that Kawai discloses all of the features of independent claims 1, 5 and 9. The Applicants respectfully disagree.

As explained above, claims 1, 5 and 9 each recite a feature of determining the amount of reducing agent supplied to the NOx selective reduction catalyst by said reducing agent supply unit such that the NOx concentration detected by said NOx detector reaches an extreme value.

Kawai discloses using a detected NOx concentration amount to determine an amount of reducing agent adsorbed to a NOx catalyst. Kawai also discloses setting a target adsorption amount of reducing agent, and controlling the supply of the reducing agent in accordance with the target adsorption amount of reducing agent. However, Kawai does not disclose or suggest attempting to make the NOx concentration reach an

extreme value by adjusting the amount of reducing agent supplied to the NOx selective reduction catalyst, as recited in claims 1, 5, and 9.

For at least this reason, Applicants submit that claims 1, 5, and 9 are allowable over the Kawai. As claims 1, 5 and 9 are allowable, the Applicants submit that claims 3-4, 7-8 and 11-12, which depend respectively from claims 1, 5 and 9, are likewise allowable over Kawai.

CONCLUSION

For all of the above reasons, it is respectfully submitted that the claims now pending patentability distinguish the present invention from the cited references. Accordingly, reconsideration and withdrawal of the outstanding rejections and an issuance of a Notice of Allowance are earnestly solicited.

Should the Examiner determine that any further action is necessary to place this application into better form, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of time. The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment associated with this communication to Deposit Account No. 01-2300.

Respectfully submitted,



Michele L. Connell
Registration No. 52,763

Customer No. 004372

ARENT FOX PLLC

1050 Connecticut Ave., N.W., Suite 400

Washington, D.C. 20036-5339

Telephone No. (202) 857-6104

Facsimile No. (202) 857-6395

CMM/MLC: